

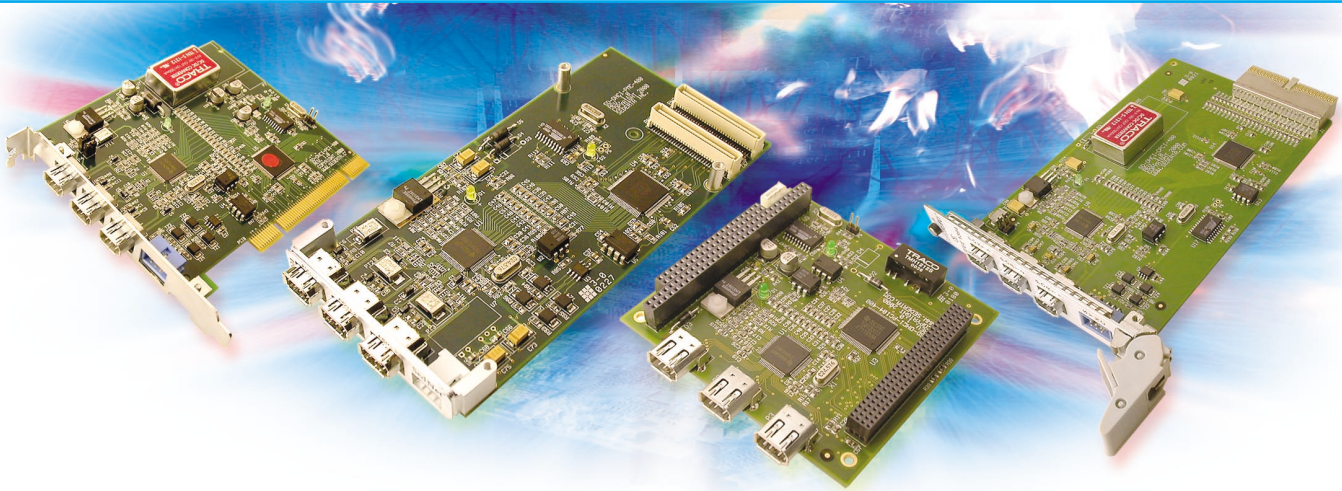


# IEEE-1394 a & b OHCI Boards

Automation Systems  
▶ **Embedded Systems**  
Test Systems

▶ **IEEE-1394**  
Proprietary Protocols

▶ **Hardware**  
Software  
Bundles  
Platforms  
Engineering Services



Mindready's SedNet™ 1394a and 1394b OHCI board family provides a complete range of industrial-grade interface communication adapters for the IEEE-1394/FireWire® bus. Various form factors are used in specific markets, and each has its unique characteristics. Mindready supplies a complete portfolio to enable all types of requirements for aerospace/defense, automotive/transport, industrial and medical applications. These boards meet the requirements of mission-critical embedded systems applications using 1394 bus components.

## Key Features

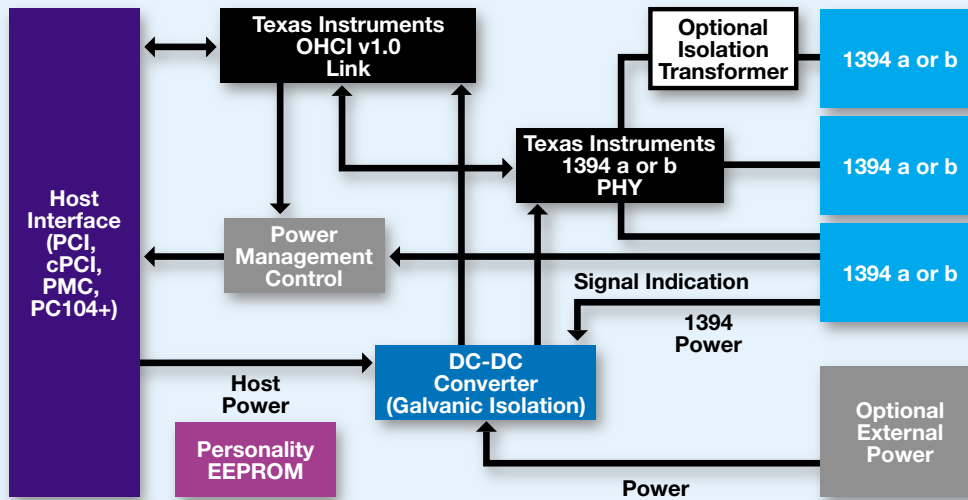
- Fully compliant with the OHCI v1.0 specification
- Available in popular PCI-based formats such as PCI, Compact PCI, PMC and PC104+, with 1394a or 1394b compliant interface
- Models provide either IEEE-1394a or IEEE-1394b bus support
- Transmission speed up to 400 Mbps with IEEE-1394a, and 800 Mbps with IEEE-1394b and suitable connections
- Support for S100, S200, S400 transfer rates standard with IEEE-1394a & b, plus S800 with IEEE-1394b
- PCI host and external power feed option (selected models only)
- Extensive protection through either galvanic isolation or with a special transformer isolation option
- Implements the IDB1394 Power Management scheme, with PCI host power control and on-board IEEE-1394 bus signal detection logic for PCI
- Choice of electrical and optical interfaces, supporting various bit rates
- Fully tested for compatibility with Mindready's extensive SedNet™ 1394 stack and high-level protocol software suite
- Able to power external devices via the 1394 cable
- Full real-time synchronization between all attached devices
- Support for asynchronous and isochronous data transfer
- Fully-programmable isochronous cycle time
- Point-to-point, daisy chain or tree topologies; no cabling restrictions

## Hardware Specifications

Form Factor	PCI, Compact PCI 3U and 6U, PMC single deck, PC104+
Connector Type	<ul style="list-style-type: none"><li>• Standard IEEE-1394a 6-pin connector for IEEE-1394a units</li><li>• Standard IEEE-1394b bilingual connectors for IEEE-1394b units</li><li>• Plastic Optical Fiber (POF) connector</li></ul>
Connector Allocation for IEEE-1394a Devices	Three standard 1394a ports
Connector Allocation for IEEE-1394b Devices	Bilingual and POF ports (see over for details)
Power Consumption	4.8 watts for the card, and up to 15 watts if power is fed to the bus
Optical Power Output	-10 dBm
Optional External Power Feed	12 volts DC (when equipped with the external power option)
Host Power Feed	Support of +5 volt and +3.3 volt power supplies
Operating Temperature	0C to +70C (+32F to +158F)
Storage Temperature	-40C to +85C (-40F to +185F)
Host Interface Standard	OHCI v1.0
Link Layer Controller	Texas Instruments TSB12LV26
Physical Layer Controller	Various



## SedNet™ 1394 a & b OHCI Boards Generic Architecture



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## Connector Allocation for SedNet™ 1394b OHCI Boards

Mindready's IEEE-1394b compliant communication adapters provide various connectivity options via Plastic Optical Fiber (POF) and Bilingual (Bi) connectors, as shown below, (subject to change).

Description	Port 1	Port 2	Port 3
1394b OHCI PCI board, 5W isolation	Bi	Bi	Bi
1394b OHCI PCI board, 15W isolation	Bi	Bi	Bi
1394b OHCI PCI board, no isolation	Bi	Bi	Bi
1394b OHCI PCI board, transformer isolation	Bi	Bi	Bi
1394b OHCI Optical PCI board, 5W isolation	POF	POF	Bi
1394b OHCI Optical PCI board, 15W isolation	POF	POF	Bi
1394b OHCI Optical PCI board, no isolation	POF	POF	Bi
1394b OHCI CPCI 3U board, transformer isolation	Bi	Bi	Bi
1394b OHCI CPCI 6U board, transformer isolation	Bi	Bi	Bi
1394b OHCI PMC board, no power provided, galvanic isolation	Bi	Bi	Bi
1394b OHCI PMC board, no power provided, transformer isolation	Bi	Bi	Bi
1394b OHCI PMC board, ext. power, 10W power internal provided, no galvanic isolation	Bi	Bi	Bi
1394b OHCI Optical PC104+ board, no isolation	POF	POF	Bi
1394b OHCI Optical PC104+ board, no isolation	Bi	Bi	Bi

## Why Choose Mindready?

- World leader in mission-critical 1394 embedded systems
- Integrated offering: 1394 boards, 1394 software, 1394 engineering services, 1394 training
- Provider of 1394 systems to key players in the aerospace/defense, automotive/transport, industrial and medical markets
- All 1394 boards can be used with Mindready's SedNet™ 1394 software suite as part of a fully-functional application
- Mindready's engineering services can design final products from the ground up or supply the expertise to quickly deliver a complete product, including hardware, software drivers, stack and audio, video or IP implementation, and RTOS portings to most popular RTOS and processors used in the embedded industry
- Operations centers in the United States, Canada and Europe
- ISO-9001 certified

## Technology Partners



## Memberships



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